

Amendments to the Abstract:

Please replace the Abstract of the Disclosure with the following new Abstract of the Disclosure:

A quantum well infrared photodetector operating at room or near room temperature is disclosed. The quantum well infrared photodetector comprises a plurality of doped quantum well layers forming a multi-quantum well structure for providing high absorption at temperatures other than low temperatures. Contact layers receive current from the plurality of quantum well layers. Operating the quantum well infrared photodetector at room or near room temperatures is highly beneficial in numerous applications such as remote environmental sensing of molecules and long wavelength based communication by substantially facilitating portability, installation and maintenance.